

UHER

SERVICE MANUAL

MODEL

mini-hit EV 739

and CG 339 Stereo



CASSETTE DECK ALIGNMENT PROCEDURE

UHER

CG339

1. Rec/PB Head Azimuth adjustment

Using the tape for the azimuth adjustment, adjust the head angle screw so that the output level of playback becomes maximum. In case of the maximum point of both channel being different, set it for the center point of the maximum level of both channels.

2. Playback Output Level Adjustment

Using the tape for the playback output level adjustment (Dolby level = 200 nwb/m), adjust R304 and R354, so that the PIN point Nos. 23 and 28 become 600 mV.

3. Level Meter Adjustment

Adjust the recording level volume R705 and R755 with input of signal 1 mV/K-ohm 400 Hz for recording, until the red LED lamp for +3 dB goes off with the level of PIN Nos. 23 and 28 at 600 mV.

4. Adjustment of Bias and Record Current

After the adjustment done as above item-3, step down the input signal by 25 dB, and then adjust R817 and R867, so that the level of PIN Nos. 23 and 28 gets same both for recording and playback operations. At the same time, set the frequency at 12.5 KHz, and adjust R106 and R105, so that the difference between 400 Hz and 12.5 KHz may become within 2 dB.

AM IF ALIGNMENT

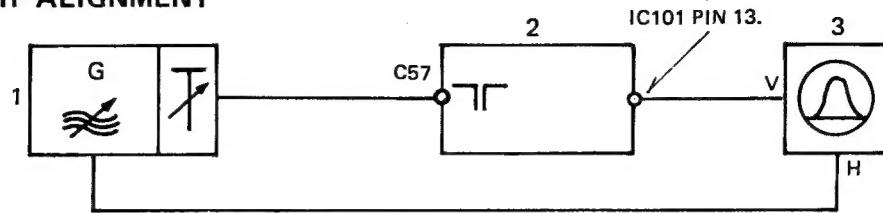


Figure 1.

AM ALIGNMENT

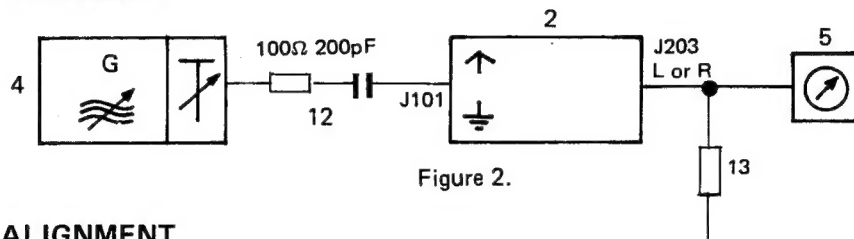


Figure 2.

FM ALIGNMENT

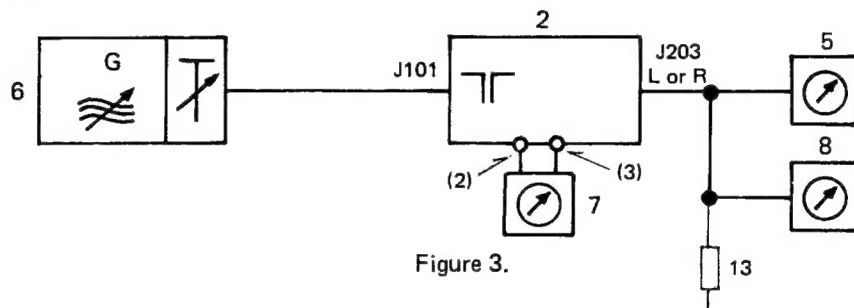


Figure 3.

STEREO DECODER ALIGNMENT

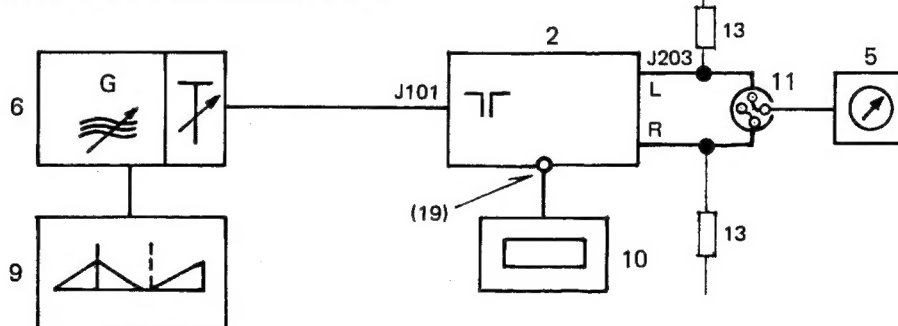
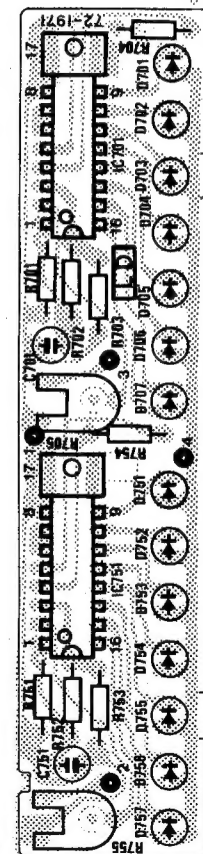
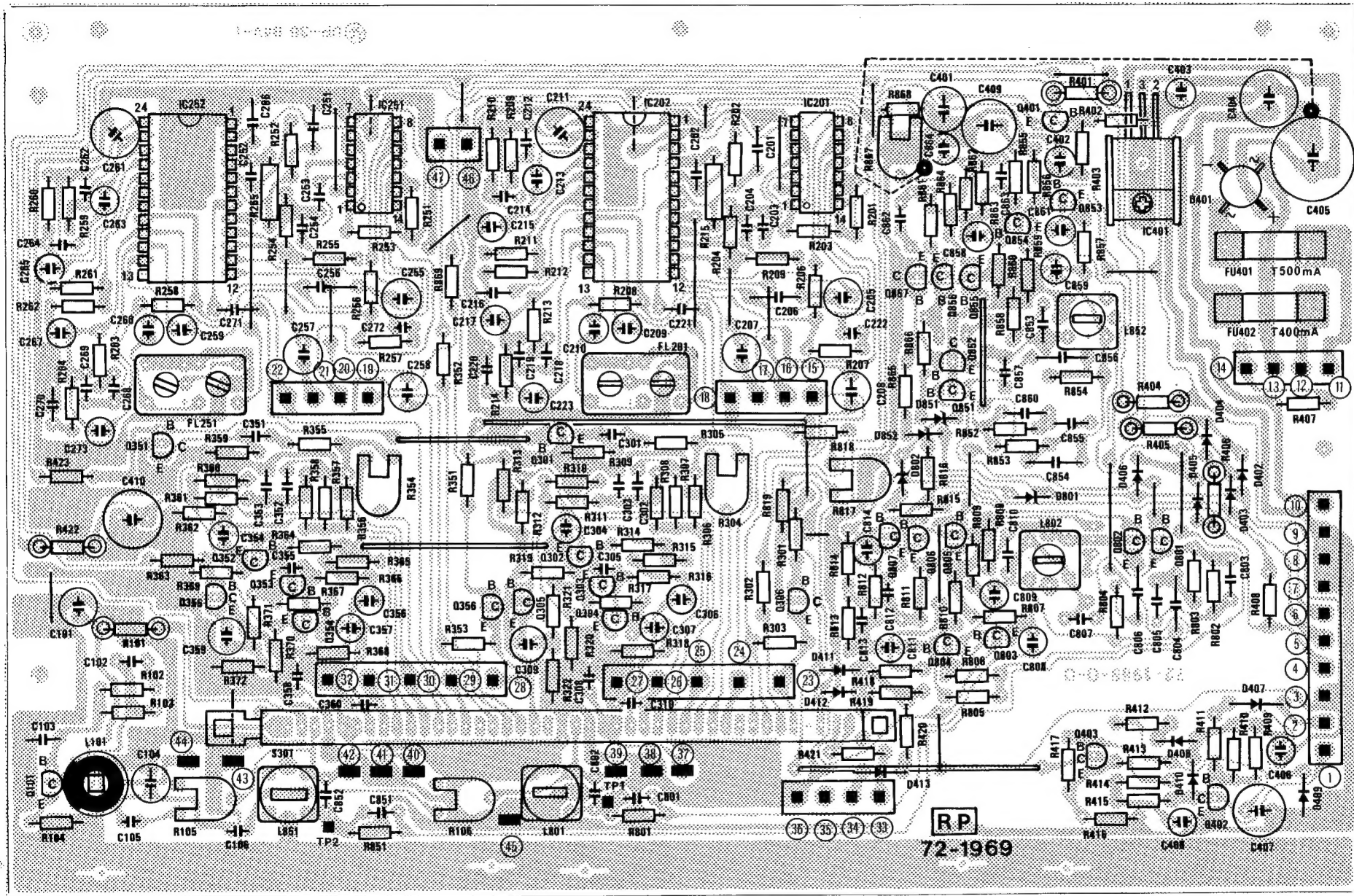


Figure 4.

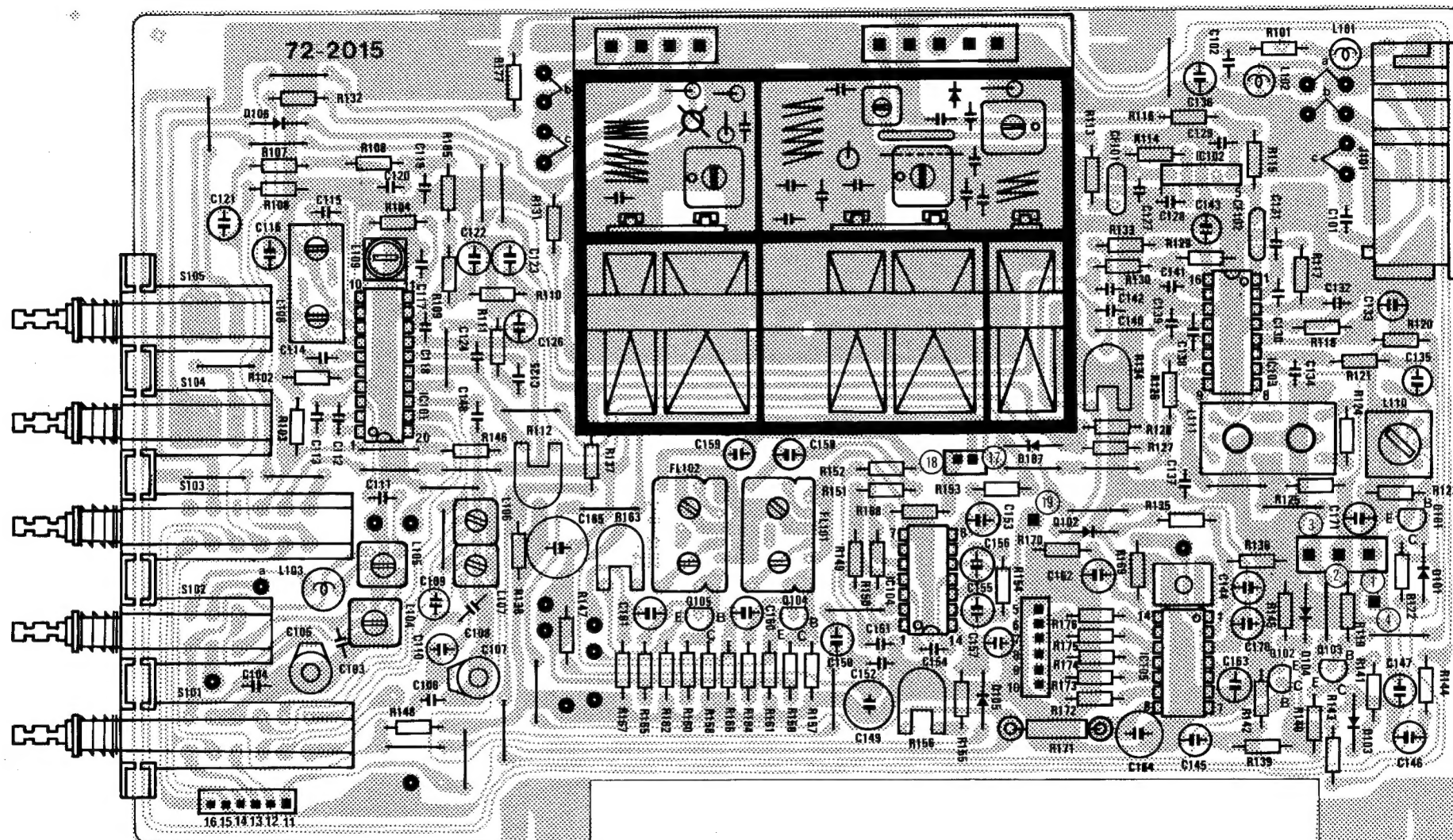
1. 450KHz Sweep Generator
2. Test Receiver
3. Oscilloscope
4. AM Signal Generator
5. AC Voltmeter
6. FM Signal Generator

7. DC Voltmeter
8. Distortion meter
9. Stereo simulator
10. Frequency counter
11. Selector switch
12. AM Dummy antenna
13. Dummy load

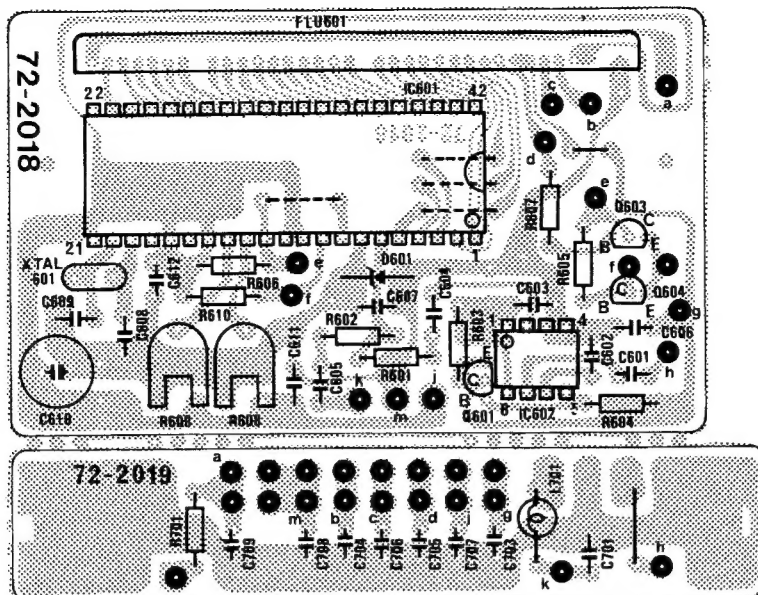


COMPONENT LOCATION RECORDING PLAYBACK AMP. UNIT (R015A)

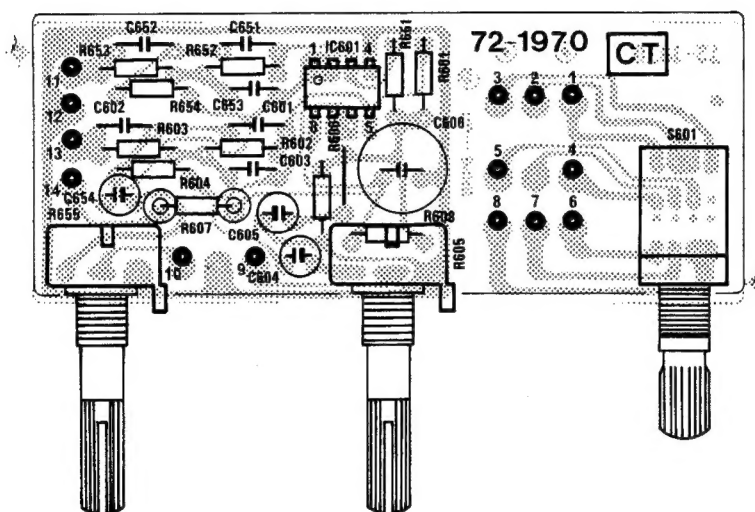
COMPONENT LOCATION LEVELMETER UNIT (M045A)



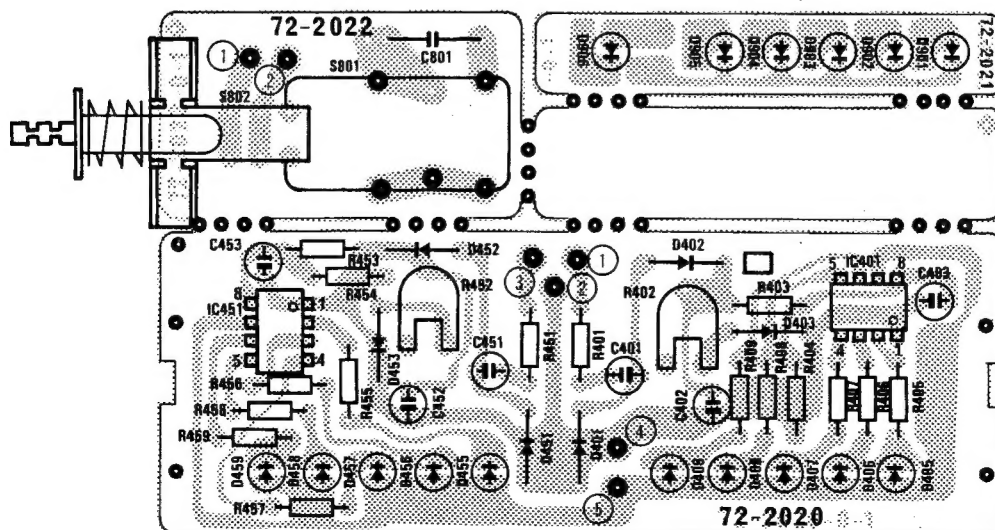
COMPONENT LOCATION TUNER UNIT (I018A)



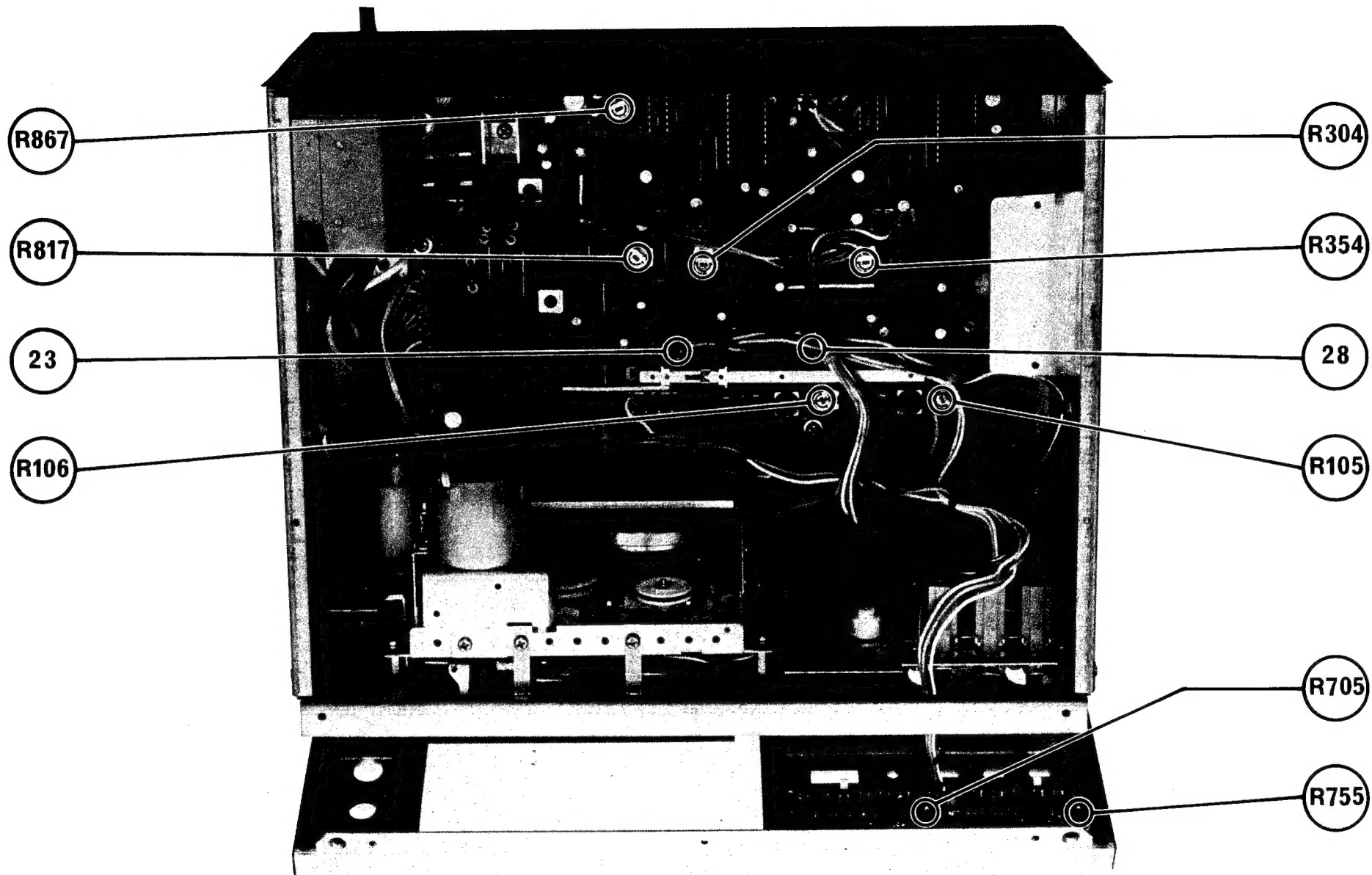
COMPONENT LOCATION DIGITAL DISPLAY UNIT
(D009A)



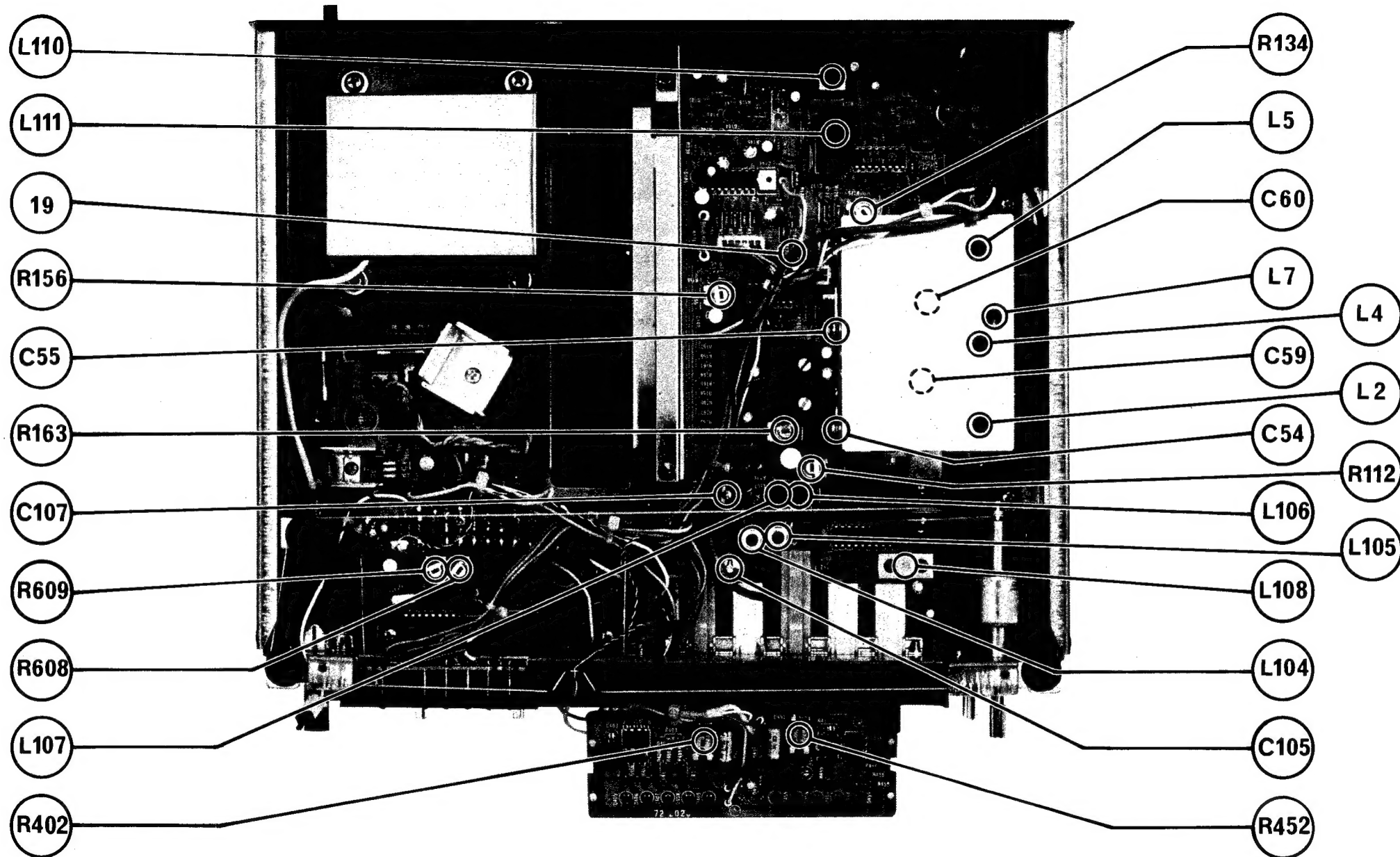
COMPONENT LOCATION RUMBLE FILTER UNIT
(A012A)



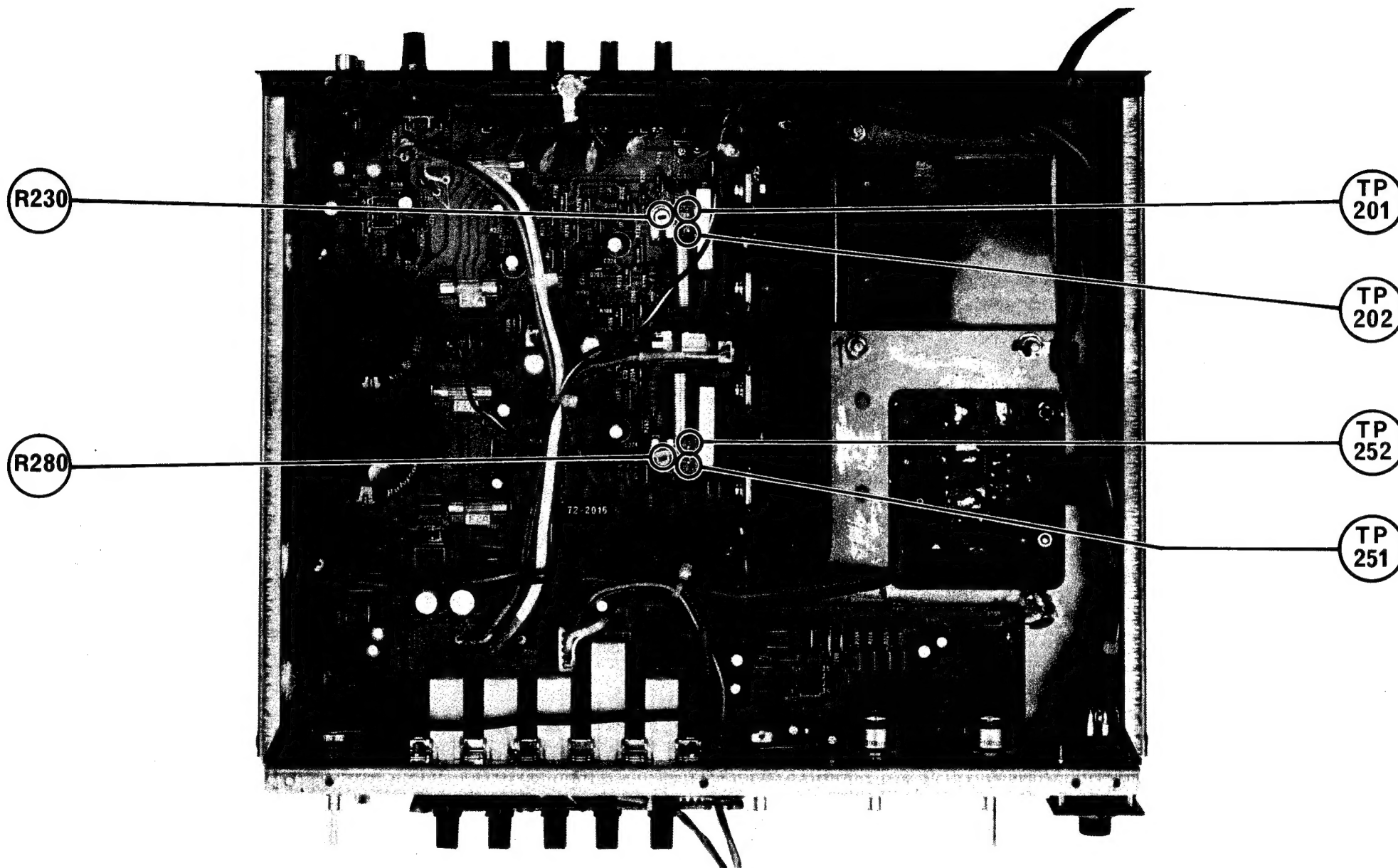
COMPONENT LOCATION LEVELMETER UNIT (M052A)



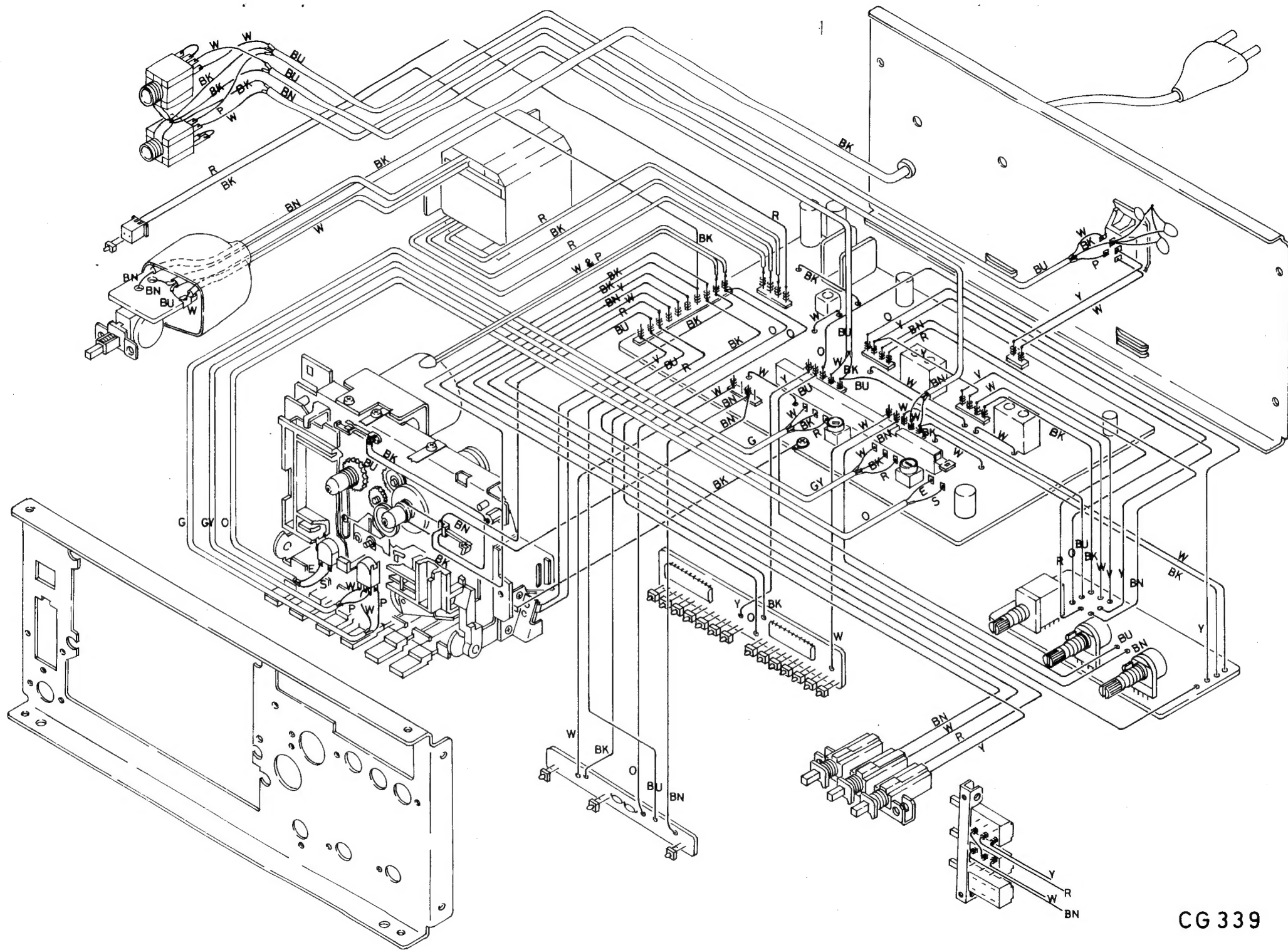
ALIGNMENT LOCATION - UHER CG339



ALIGNMENT LOCATION - UHER EV739 (1/2)



ALIGNMENT LOCATION – UHER EV739 (2/2)



Mark of capacitors

Aluminum electro

Film

Ceramic

Mark of resistor

1/4 Watt

1/2 Watt

1 Watt

No mark : carbon film

○ : carbon composition

△ : metal oxide film

IC101 LA1245

1	20	1 By pass	11 DET input
2	19	2 By pass	12 IF GND
3	18	3 FR input	13 DET output
4	17	4 RF GND	14 IF Vcc
5	16	5 RF output	15 By pass
6	15	6 Mix input	16 Signal meter output
7	14	7 Mix output	17 AGC input
8	13	8 RF Vcc	18 Bias
9	12	9 IF input	19 OSC
10	11	10 IF output	20 OSC buffer output

IC103 LA1231N

1	16	1 IF input	9 Quad input
2	15	2 By pass	10 Ref voltage
3	14	3 Bias	11 Vcc
4	13	4 GND	12 Mute output
5	12	5 Mute drive	13 Signal meter output
6	11	6 Audio output	14 GND
7	10	7 AFC output	15 AGC out. IF amp stop
8	9	8 IF output	16 Mute level

IC201, IC202, IC203, NJM4558DA

1	8	1 OUT (A)	5 IN+ (B)
2	7	2 IN- (A)	6 IN- (B)
3	6	3 IN+ (A)	7 OUT
4	5	4 VEE	8 VCC

IC104 AN115

1	14	1 Vcc	8 LPF
2	13	2 Input	9 LPF
3	12	3 Pre amp out	10 19KHz monitor
4	11	4 L output	11 Phase det input
5	10	5 R output	12 LPF
6	9	6 Stereo ind	13 LPF
7	8	7 VEE	14 VCO ADJ

IC105 LB1426

1	14	1-Input (AB)	8 Vcc
2	13	2-Input (A)	9 D1
3	12	3-Input (B)	10 D2
4	11	4 Bias1	11 D3
5	10	5 Ref. voltage	12 D4
6	9	6 Bias2	13 D5
7	8	7 VEE	14 DET output

IC401 TC489C

1	8	1 VEE	5 D4
2	7	2 D1	6 D6
3	6	3 D2	7 Vcc
4	5	4 D3	8 Analog IN

IC601 LC7258

1	42	1 C	22 ade q
2	41	2 g	23 C
3	40	3 b	24 b
4	39	4 b e	25 a
5	38	5 g	26 f
6	37	6 Fin	27 e
7	36	7 Vss	28 d
8	35	8 IF FM	29 c
9	34	9 IF AM2	30 g
10	33	10 Ref voltage	31 b
11	32	11 IF AM1	32 a
12	31	12 5/4 digit	33 f
13	30	13 FM fine	34 e
14	29	14 AM fine	35 d
15	28	15 US	36 c
16	27	16 SW fine	37 g
17	26	17 Lock	38 b
18	25	18 SF Ena	39 a
19	24	19 OSC output	40 f
20	23	20 OSC input	41 e
21	22	21 Vdd	42 d

IC102 TA7060AP

1	2	3	4	5
Input	Bias	Vee	Output	VEE

Q206 2SD837
Q207 2SB751
Q501 2SD526

Q101, Q102, Q104,
Q105, Q106,
Q601, Q602, Q603
2SC1815
Q304, Q202
2SA817
Q203
2SC982
Q204
2SC2320

Q201 2SC1583

1	2	3	4	5
B	C	E	C	B

Q103, Q205
Q301, Q303 Q302
2SA999

Q2 2SK55

3	2	1
DSG		

ALIGNMENT PROCEDURE **UHER EV739**
STEREO RECEIVER

AM IF ALIGNMENT

Step	Sweep Generator	Output Indicator Connection	Sweep Generator Frequency	Radio Dial Setting	Adjustment	Remarks	Step
1	Set function switch on AM.						1
2	Sweep Generator to C57 and Ground.	Scope to IC101 Pin 13 and Ground.	450KHz	Quiet point on band.	L108 L109	Retouch to obtain optimum symmetrical response.	2

1W ALIGNMENT

Step	Signal Generator	Output Indicator Connection	Signal Generator Frequency	Radio Dial Setting	Adjustment	Remarks	Step
1	Set function switch on MW.						1
2	AM Generator through dummy to antenna socket.	AC Voltmeter to J203 L or R	515KHz	Tuning gang fully counterclockwise.	L106	Adjust for maximum output.	2
3	Same as step 2.	Same as step 2.	1650KHz	Tuning gang fully clockwise.	C60	Same as step 2.	3
4	Repeat step 2 and 3 until no further improvement is noticed.						4
5	Same as step 2.	Same as step 2.	600KHz	Tune to signal.	L104	Same as step 2.	5
6	Same as step 2.	Same as step 2.	1400KHz	Tune to signal.	C59	Same as step 2.	6
7	Repeat step 5 and 6 until no further improvement is noticed.						7
8	Same as step 2 and set level to maximum output.		1000KHz	Tune to signal.	R112	Adjust for indicate to D905.	8

LW ALIGNMENT

Step	Signal Generator	Output Indicator Connection	Signal Generator Frequency	Radio Dial Setting	Adjustment	Remarks	Step
1	Set function switch on LW.						1
2	AM Generator through dummy to antenna socket.	AC Voltmeter to J203 L or R	140 KHz	Tuning gang fully counterclockwise.	L107	Adjust for maximum output.	2
3	Same as step 2.	Same as step 2.	360 KHz	Tuning gang fully clockwise.	C107	Same as step 2.	3
4	Repeat step 2 and 3 until no further improvement is noticed.						4
5	Same as step 2.	Same as step 2.	160 KHz	Tune to signal.	L105	Same as step 2.	5
6	Same as step 2.	Same as step 2.	320 KHz	Tune to signal.	C105	Same as step 2.	6
7	Repeat step 5 and 6 until no further improvement is noticed.						7

FM ALIGNMENT

Step	Signal Generator	Output Indicator Connection	Signal Generator Frequency	Radio Dial Setting	Adjustment	Remarks	Step
1	Set function switch on UKW and Muting switch to off.						1
2	FM Generator to antenna socket directly.	DC Voltmeter to Terminal (2) and (3)	98MHz	Tune to Signal.	L111	Adjust for minimum.	2
3	Same as step 2.	Distortion meter to J203 L or R	Same as step 2.	Same as step 2.	L7 L112	Same as step 2.	3
4	Repeat step 2 and 3 until no further improvement is noticed.						4
5	Same as step 2.	AC Voltmeter to J203 L or R	87.4MHz	Tuning gang fully counterclockwise.	L5	Adjust for maximum.	5
6	Same as step 2.	Same as step 5.	108.25MHz	Tuning gang fully clockwise.	C56	Same as step 5.	6
7	Repeat step 5 and 6 until no further improvement is noticed.						7
8	Same as step 2.	Same as step 5.	90MHz	Tune to Signal.	L2, L4	Same as step 5.	8
9	Same as step 2.	Same as step 5.	106MHz	Tune to Signal.	C54, C55	Same as step 5.	9
10	Repeat step 8 and 9 until no further improvement is noticed.						10
11	Set Muting switch to on.						11
12	Same as step 2 and set level to 14dB μ	Same as step 5.	98MHz	Tune to Signal.	R134	Adjust for release point	12

DIGITAL FREQUENCY INDICATOR ALIGNMENT

Step	Signal Generator	Output Indicator Connection	Signal Generator Frequency	Radio Dial Setting	Adjustment	Remarks	Step
1	Set function switch on MW.						1
2	AM Generator to antenna socket	AC Voltmeter to J203 L or R.	1000KHz Exactly.	Tune to Signal.	R609	Adjust for indicate to 1000KHz.	2
3	Set function switch on UKW.						3
4	FM Generator to antenna socket.	Same as step 2.	98MHz Exactly.	Tune to Signal.	R608	Adjust for indicate to 98MHz.	4

STEREO DECODER ALIGNMENT

Step	Signal Generator	Output Indicator Connection	Stereo Simulator Modurate Mode	Radio Dial Setting	Adjustment	Remarks	Step
1	Set function switch on UKW and Muting switch to Stereo position.						1
2	FM Generator to antenna socket and dial tune ratio to 98MHz.	Frequency counter to Terminal (19) and ground.	Non modurated.	Tune to Signal.	R156	Adjust for 19KHz exactly.	2
3	Same as step 2.	AC Voltmeter to J203 L or R.	Modurated L or R stereo mode.	Same as step 2.	R163	Adjust for maximum separation.	3

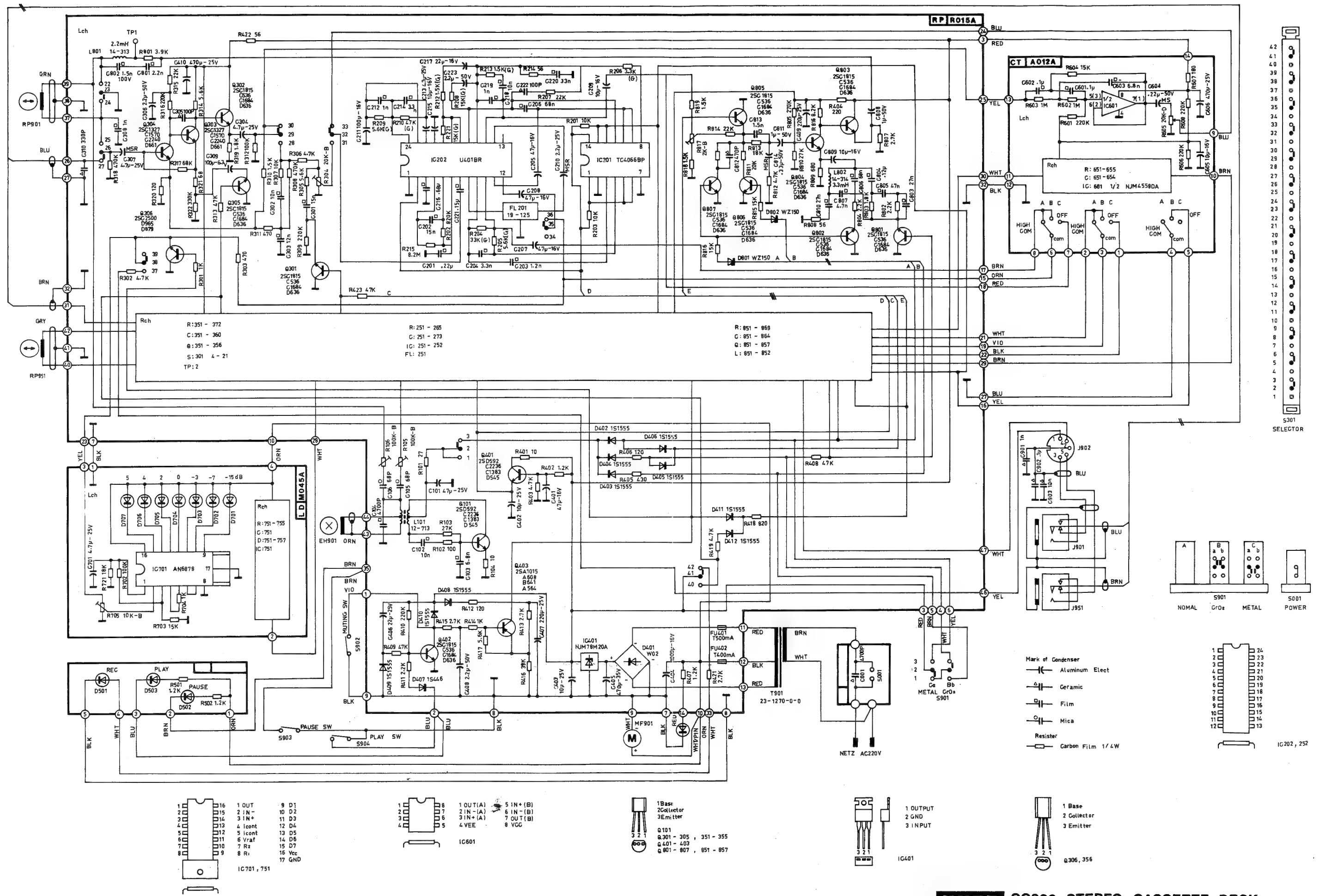
AMPLIFIER ALIGNMENT

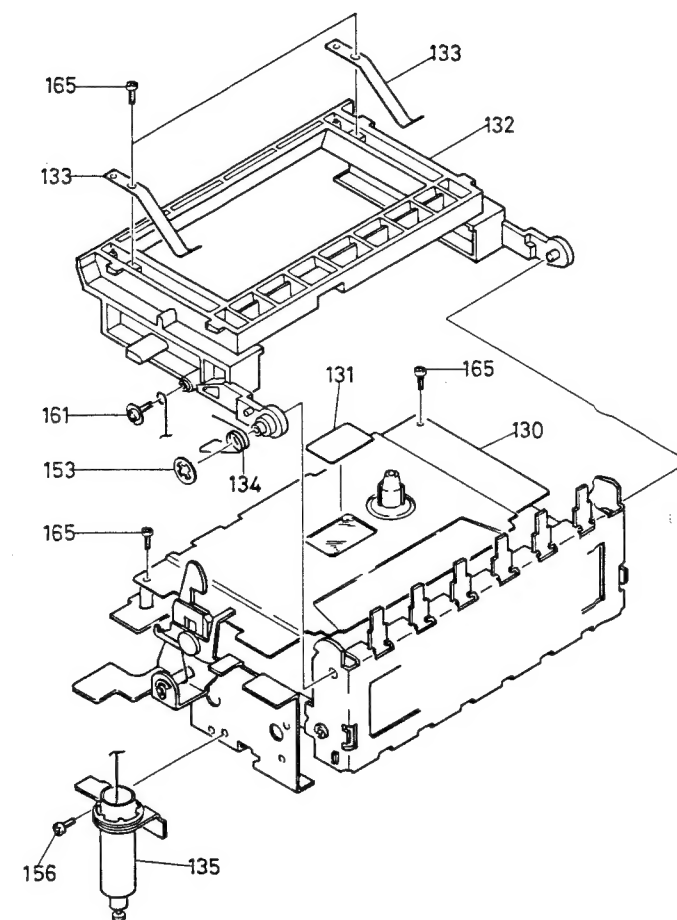
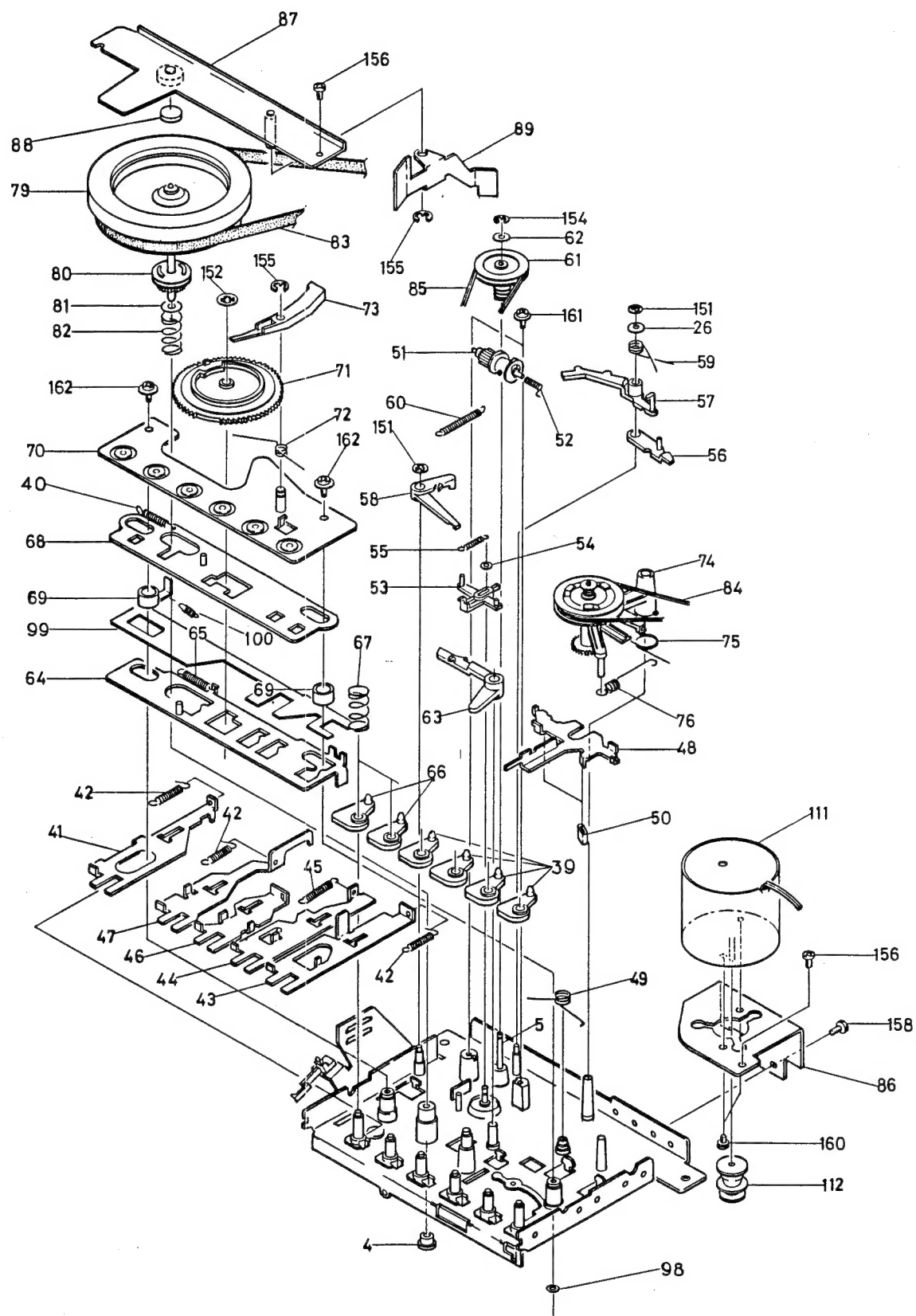
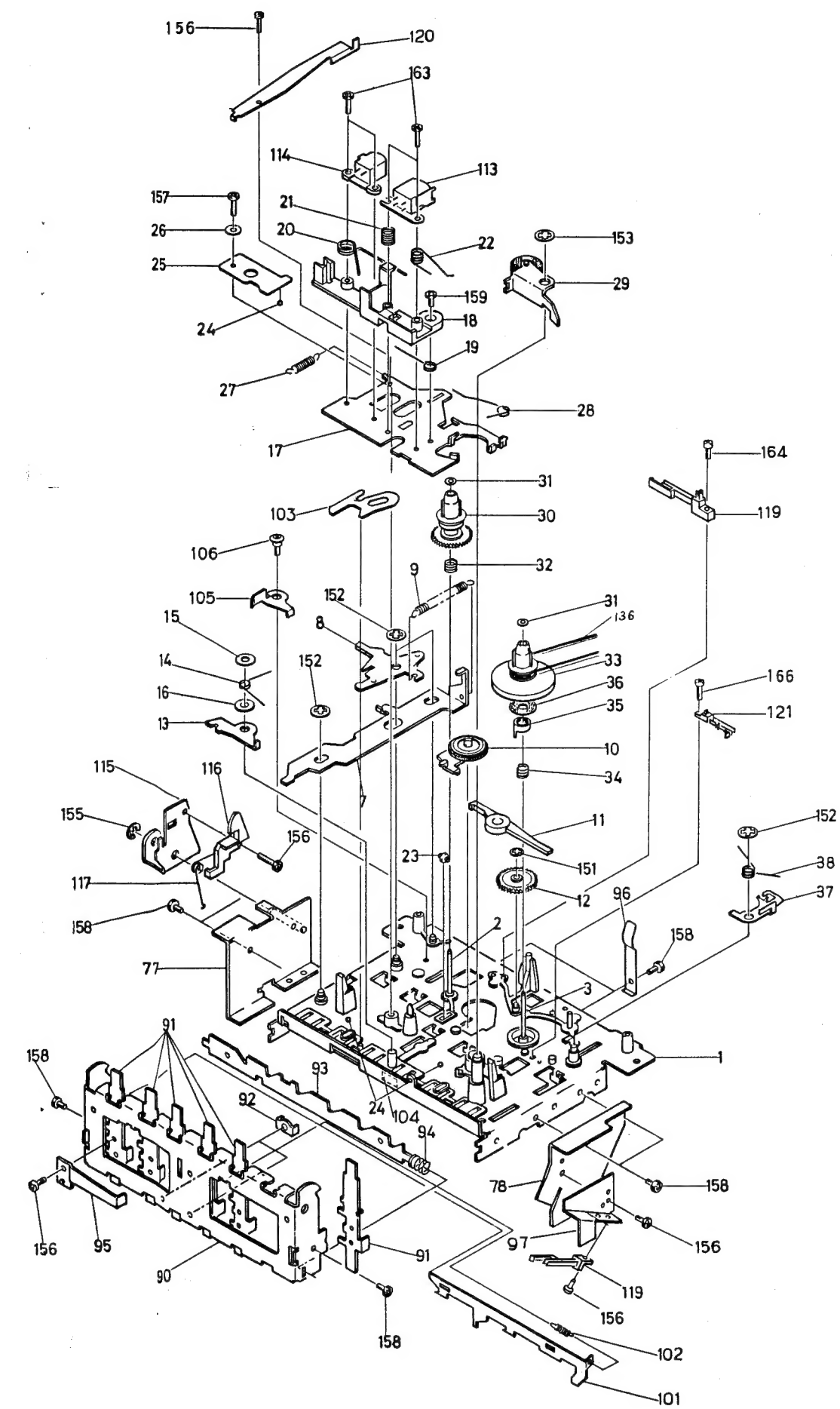
Step	Meter Connection	Adjustment	Remarks	Step
1	Set Volume control to minimum.			1
2	DC Voltmeter to TP201 and TP202, (TP251 and TP252)	R230, (R280)	Adjust for approximate to 7 mV.	2

(): Right channel.

POWER INDICATOR ALIGNMENT

Step	Signal Generator	Adjustment	Remarks	Step
1	Set function switch on RECORDER and Volume control to 20 watt output at 4 ohm load.			1
2	Audio Generator to J202 L and R.	R402, R452	Adjust for indicate to D408 and D458.	2





MF42O
CG 33 9

